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New approach in the description of dielectric relaxation phenomenon: Correct deduction and interpretation of the Vogel-Fulcher-Tamman equation

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Abstract

An empirical Vogel-Fulcher-Tamman (VFT) equation, connecting the maximum of the loss peak with temperature, was described. In order to establish the loss peak VFT dependence, a complex permittivity function should contain at least two relaxation times obeying the Arrhenius formula with two different set of parameters. It was shown that at a certain combination of initial parameters the parameter TVF can be negative or even accept complex value.

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